

**William R. Johnston  
President and Chief Operating Officer  
on  
H.R. 1053  
The Common Cents Stock Pricing Act of 1997**

**Subcommittee on Finance and Hazardous Materials  
Committee on Commerce  
United States House of Representatives  
April 16, 1997**

**I am William R. Johnston, President and Chief Operating Officer of the New York Stock Exchange. Thank you for this opportunity to present the views of the New York Stock Exchange on the issue of decimal pricing of securities quotations. This is an issue to which we at the NYSE have devoted much time and attention as we have worked toward strengthening our international competitive position and securing our place as the pre-eminent stock exchange in the world. We can certainly appreciate the Subcommittee's interest in this important issue and we want to work with you and provide whatever assistance we can in evaluating the impact a change to decimal pricing could have on the U.S. securities market. At this time, however, we believe there is no real evidence that decimal trading will benefit investors. Ironically, in the short run, a shift to decimalization would probably be of benefit to the NYSE because it would likely increase volume, generating additional revenues for our market, and make it difficult for our competitors to survive. In the long run, however, based on evidence currently available, we believe decimalization would make our market less transparent and less**

liquid. This, in turn, would undermine investors' confidence and ultimately affect their willingness to send their orders to our Exchange.

The U.S. securities market is the most liquid, efficient and well-regulated securities market in the world. It is also a market that has been hugely successful, with our 1996 record-setting volume topping 104 billion shares traded -- an average of over 410 million shares a day. We now have nearly 3,000 listed companies. In addition, approximately 60 million Americans own stock, either directly or through pooled investments such as mutual funds and pension plans. On the international front, our competitive position has never been stronger. Over the past seven years, the number of non-U.S. companies coming to the NYSE to have their shares listed on our exchange has grown from 96 to 294. Clearly, the U.S. equities market has emerged as the undisputed world leader for capital formation: we are the standard by which all other markets are judged.

Given the unparalleled success of our market, we would ask that Congress not mandate changes to it without clear evidence that investors and the capital formation process would benefit. Absent such evidence, we believe that Congressional action in this area is inconsistent with the long history of Congressional deference to competitive market forces. Moreover, if decimal pricing ever proves to be beneficial to investors, the market will respond -- it will be in our strong competitive self-interest to do so. We see

no demonstrated need for Congress to intervene in this area and change the unit of trading in the securities market.

### **The Supposed Benefits of Decimal Trading**

Advocates of decimal trading cite a number of reasons why they believe such a change in trading increments would benefit investors and our capital markets. While these reasons may have some appeal, none of them withstand careful scrutiny.

*Estimates of "investor savings":* It has been estimated that U.S. investors could save \$1.5 billion a year per one-cent reduction in the bid-asked spread. However, there are a number of flaws in this estimate. First, the individual making this estimate has not asserted that investors would actually save this amount. He has simply estimated that if spreads are reduced the saving would be \$1.5 billion per penny. Nothing in the bill specifically requires a narrowing of spreads. Nothing in the bill requires a minimum trading variation that is smaller than the current standard. Indeed, the sponsors of this bill expressly have disavowed such a purpose. Also, as discussed below, it is possible that decimalization would lead to decreased depth and liquidity in the market, imposing a net cost on investors.

Second, even if spreads do narrow in some stocks, it is even less certain that decimalization will result in reduced spreads in all stocks. This is especially true since

the spread for a significant percentage of publicly traded stocks currently is greater than the minimum variation of one-eighth. It is unclear that these spreads would narrow simply if we were to quote stocks in decimals. For some of these stocks, spreads could just as easily widen.

In addition, while we understand that this estimate attempted to factor out customer-to-customer trades on a national securities exchange, we do not know if the estimate recognized the actual amount of such trading in the NYSE's agency-auction market. In all trades between two customers, for any savings to one customer, there would be an offsetting cost to another customer. And in the NYSE market, such trading represents over 80% of our volume.

For instance, under the current system of fractions, the market for an actively traded stock might be \$20 to buy and \$20 1/8 to sell. Thus, a customer entering a market order to buy will receive a price of \$20 1/8. With decimal pricing, the market for the stock might be \$20 to buy and \$20.10 to sell, saving the buyer 2.5 cents per share. However, the customer who entered the limit order to sell has lost a corresponding 2.5 cents on the transaction.

Similarly, for over-the-counter trades, it is unclear if this estimate factored out transactions between dealers. In those trades, by definition, there would be no customer savings. Even in trades between a dealer and a customer -- which still account

for most OTC trades -- there is a customer on only one side of the trade. For those trades, the net savings to customers is only half of what is estimated.

Perhaps of most importance, a simple analysis of the dollar savings investors would enjoy as a result of presumably narrower spreads ignores the potentially costly "side effects" of decimalization on market structure. For example, while a move to decimal trading could reduce spreads, such a move almost certainly will lead to reduced market "depth," that is, there will be a decrease in the number of shares that specialists and market-makers are willing to trade at their quoted prices. Studies of TSE's conversion to decimalization show that for stocks priced over \$5, average declines in quotation size ranged from 26% to 52%.<sup>1</sup>

A decrease in depth can actually lead to higher trading costs for larger trades, despite the reduction in quotation spreads.<sup>2</sup> Specifically, the larger a trade, the more likely it will exhaust the existing quote. Once a quote is exhausted, specialists and market-makers are likely to change their quotes to accommodate the remaining portion of the trade. The result can be that, while the investor receives a better price for a small portion of the trade, the investor receives an inferior price for the remainder of the trade. Moreover, for most institutional traders,

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<sup>1</sup> Harris, "Decimalization: A Review of the Arguments and Evidence," Draft, March 28, 1997, at 11. Variation is due to differences in sampling and averaging methods.

<sup>2</sup> Huson, Kim, Mehrotra, "Decimals quotes, market quality, and competition for order flow: Evidence from the Toronto Stock Exchange," Draft, March, 1997.

it is frequently important to be able to obtain an execution of a large order at a single price. For them, reduced depth can significantly increase transaction costs.

**Professional front-running:** The NYSE's agency-auction market is based on a complex set of rules establishing priority and precedence based on a combination of price, time and size of an order. These rules create a balance that protects investors, that creates incentives for investors to bring orders to the Exchange, that improves prices and that adds depth and liquidity to the market. However, investors will bring orders to the Exchange only if they have a reasonable basis for believing that their orders will be executed.

Currently, investors know that a professional trader must improve the bid or offer by a significant amount to establish priority over that customer. However, the smaller the tick becomes, the easier it would be for traders to step in front of other orders on an exchange. This is particularly troublesome because professional traders are in the best position to see the order flow and to react quickly to price changes. If the tick is too small, the current rules of priority and precedence can become meaningless.

For example, assume that the bid in AT&T ("Telephone") is \$35 and the offer is \$35 1/8, with 100,000 shares both bid and offered. Due to the broad nature of the market in Telephone, it is likely that most of these shares represent public orders, and that those orders will be executed against new public orders entering the market. It is

this interaction of customer order flow -- without dealer intervention -- that creates the Exchange's deep and liquid agency-auction market.

With decimalization and a decrease in tick size, professional traders with ready market access could interpose themselves between the public orders with little, if any risk. In this situation, a professional trader could enter an order to buy Telephone at \$35.02, knowing that the position could be liquidated at \$35. This allows the professional to step ahead of the public orders, knowing that he or she faced a maximum risk of \$.02. Other traders that do not have the same degree of market access would not be able to compete against the professional.

As this scenario shows, decimalization could result in a significant shift of power away from public customers professional traders, undermining the very basis of our market. Public investors could lose confidence in the integrity of our market and their ability to obtain a trade execution at a price of their choosing. Their ensuing reluctance to place limit orders in our market could profoundly affect the efficiency of price discovery on our market.

*Simplicity:* Some advocates of decimalization believe that it would be easier for investors to understand decimal pricing than fractions. However, the U.S. securities market is undergoing exponential growth, with increased participation by all segments of the investor community. There is no evidence to suggest that investors are discouraged from investing by the current system of stock quotations, which has been in existence for

more than 200 years. In addition, the use of fractional denominations is common in other areas, such as home mortgage interest rates, without any apparent confusion.

**Globalization:** Many other world markets use decimal pricing. Some people think that the U.S. markets must convert to a similar pricing structure either to be competitive or to remove a barrier to attract international listings.

As to market competition, the United States has the strongest securities market in the world, and there is no evidence that our pricing increments present any barrier to competition. Indeed, the experience of the TSE shows that decimal pricing has little competitive impact. While the TSE adopted decimal pricing, in part, to create "more efficient pricing, enhanced competitiveness, increased trading volume, and greater visibility and liquidity," there is little evidence that it has achieved these goals.

In fact, a recent Canadian study examines in detail the competitive impact of decimal trading on the TSE. The study concludes that, following the TSE's switch to decimal trading: the TSE did not gain a greater market share in the TSE stocks dually-listed on the TSE and the NYSE; market makers on U.S. exchanges did not reduce spreads or increase depth in these dually-listed stocks to compete with the TSE; and the attractiveness of the TSE as a market, as measured by the price of seats on the TSE, did not change.<sup>3</sup>

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<sup>3</sup> Ibid.

As to international listings, as Congress is well aware, it has long been a priority of the New York Stock Exchange to attract world-class issuers to its markets. The biggest obstacle to listing in the United States remains the requirement for compliance with U.S. accounting standards, rather than a different quotation system.

**Payment for Order Flow and Preferencing:** Market participants favoring decimalization believe that the narrower spreads that may result from decimal pricing will reduce or eliminate payment for order flow and preferencing. While the Exchange long has stated its opposition to these practices, it is unclear what effect, if any, decimalization will have on them. As long as these practices continue, they will stifle price competition and contribute to wider, not narrower, spreads. These are anti-competitive practices that are bad for the investors and bad for the market. Congress or the SEC simply should ban them, not address them through unproven actions that could result in other serious consequences to our market.

### **The Costs of Moving to Decimals**

Not only has anyone yet to prove the benefits of decimalization, but there are significant system costs of moving to decimals that must be explored. These potential costs include:

**The Dollar Cost of Converting:** We cannot provide an accurate estimate of the dollar cost of converting to decimals. However, it would be a significant industry expense to convert all computer systems in the country from fractions to decimals. At a

minimum, it would affect the stock and option exchanges, the NASD, all securities firms, the market data vendors and the participants in the national clearance and settlement system. Our understanding is that the overall industry costs will be well into the hundreds of millions of dollars.

**Effect on Other Market Priorities:** Requiring a move to decimals at this time would establish new computer programming priorities at the most inopportune moment. The securities industry is currently in the process of making extensive system changes to address two priorities: the "Year 2000 problem" and accommodating the SEC's new order execution rules. Both of these issues require the immediate attention of industry programming staffs. The SEC has established very tight time frames for compliance with the order handling rules, and the "Year 2000 problem" has its own calendar-imposed deadline. The systems work to provide for decimal pricing is unrelated to the work needed to address these other two issues. Thus, not only is there a lack of synergy between these projects, but adding decimal pricing adjustments to work already required would complicate matters by necessitating even more testing.

We fail to see any benefits from diverting attention to yet another programming problem. Not only would that jeopardize a move to decimals, but it could jeopardize addressing both the Year 2000 problem and achieving compliance with the new order execution requirements.

### **Market Forces Are Working**

Although well-meaning, by changing the increment of trading, Congress will be addressing only one part of a complex, interrelated set of rules. The markets themselves, through the input of all participants in the self-regulatory process, are in the best position to consider these variables and to establish trading rules that balance the interests of all market participants. We urge Congress not to act precipitously by imposing changes to market structure that would make our market less transparent, less liquid, and shift power to professional traders away from public customers. The high rate of individual investor participation in our market compared to the other securities markets in the world is testament to the strength of investor confidence in the current system. Changes that would undermine investor confidence will work to our long-term detriment.

The strength of our market is based on freedom of competition. If it ever becomes clear that decimalization would be of benefit to investors, the market will respond. Investors and other market participants, not the government, should determine the wisdom of such a move.

Summary of Testimony  
William R. Johnston  
President and Chief Operating Officer  
New York Stock Exchange  
April 16, 1997

The New York Stock Exchange has carefully studied the issue of decimal pricing of securities quotations. We find no real evidence at this time that it would be of net benefit to investors, and we have concerns that in the long run it would make our market less transparent and less liquid. The U.S. securities market is the most liquid, efficient, and well-regulated securities market in the world. Congress should not mandate changes without clear evidence of benefit to all investors, large and small, and to the capital formation process. Competitive market forces are preferable to a government mandate.

**The supposed benefits of decimal trading** do not withstand careful scrutiny. Estimates of investor savings are speculative at best. There is no evidence that bid-asked spreads will narrow under decimal pricing. Even if they do narrow in some stocks, over 80% of our volume represents customer-to-customer trades, where reduced spreads will not result in investor savings. There are also potentially costly “side effects” on market structure, such as reduced depth (number of shares offered at the quoted price) that could lead to higher trading costs for larger trades.

**Professional frontrunning** is another hazard which could result from decimal pricing. Under current rules, professional traders must improve the bid or offer by a meaningful amount to establish priority over a customer. Reducing this amount to a penny would facilitate the ability of professional traders to step in front of other orders. Decimal pricing could result in a significant shift of power away from public customers to professional traders, undermining the very basis of our market.

**Globalization** and the use of decimal pricing in other world markets is not a deterrent to non-U.S. companies listing in our market. The biggest obstacle to listing in the U.S. remains the requirement of U.S. accounting standards. If the U.S. securities market believed that decimalization were necessary for international competitiveness, it would convert without government direction.

**The costs of converting to decimals** could be significant. At a minimum, it would affect all stock and options exchanges, the NASD, all securities firms, market data vendors, and participants in the national clearance and settlement systems.

**Market forces are working.** The strength of our market is based on freedom of competition. Investors and other market participants, not the government, should determine the wisdom of any move to decimal pricing.